

Clean Version of Proposed Amended Claims:

1 9. A process for controlling the pressure within a chamber, comprising the steps of:

2 first generating a pressure sensor signal responsive to the pressure in said chamber;

3 second generating a step command signal responsive to said pressure sensor signal
4 and a tool logic signal, said step command signal generating comprising applying a pressure
5 control algorithm to said pressure sensor and tool logic signals;

6 third generating a direction/speed command signal responsive to said step command
7 signal and a valve position feedback signal, said valve position feedback signal comprising
8 data representing the position of a motor drive operatively connected to a valve, said
9 direction/speed command signal generating comprising applying a position control algorithm
10 to said step command and valve position feedback signals;

11 actuating said valve responsive to said direction/speed command signal, said
12 actuating comprising moving said valve by operation of said motor drive, said actuating
13 resulting in said valve residing in a position, said valve in fluid communication with said
14 chamber;

15 fourth generating another said valve position feedback signal responsive to said
16 position of said valve, said valve position feedback signal comprising data representing the
17 position of said motor drive operatively connected to said valve; and

18 repeating said third generating, said actuating and said fourth generating steps until
19 said pressure is controlled adequately.

1 14. A process for controlling the fluid flow through a conduit, comprising the steps of:

2 generating a flow sensor signal responsive to the flow in said conduit;

3 generating a step command signal responsive to said flow sensor signal and a tool logic
4 signal, said step command signal generating comprising applying a flow control algorithm to said
5 flow sensor and tool logic signals;

6 generating a direction/speed command signal responsive to said step command signal and a
7 valve position feedback signal, said valve position feedback signal comprising data representing
8 the position of a motor drive operatively connected to a valve, said direction/speed command
9 signal generating comprising applying a position control algorithm to said step command and valve
10 position feedback signals;

11 actuating said valve responsive to said direction/speed command signal, said actuating
12 comprising moving said valve by operation of said motor drive, said actuating resulting in said
13 valve residing in a valve position, said valve in fluid communication with said conduit;

14 generating another said valve position feedback signal responsive to said position of said
15 valve, said valve position feedback signal comprising data representing the position of said motor
16 drive operatively connected to said valve; and

17 repeating said direction/speed command signal generating step, said actuating step and said
18 valve position feedback signal generating step until said fluid flow is controlled adequately.

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